

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>16924 - 035WO1</b>	<b>FOR FURTHER ACTION</b>		see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. <b>PCT/US2004/025181</b>	International filing date (day/month/year) <b>02/08/2004</b>	(Earliest) Priority Date (day/month/year) <b>31/07/2003</b>	
Applicant <b>HANDYLAB, INC.</b>			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

### 1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b.  With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2.  **Certain claims were found unsearchable** (See Box II).

3.  **Unity of invention is lacking** (see Box III).

### 4. With regard to the **title**,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

### 5. With regard to the **abstract**,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

### 6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 1

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

b.  none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2004/025181

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-16

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-16

Claims 1-16 relate to microfluidic devices and methods for processing a particle-containing liquid sample. The claimed devices and methods include a retention member (e.g. a filter) by means of which particles are retained and thereafter the separated particles are recombined with a subset of the portion of the liquid separated through the retention means.

The problem solved by these devices and the corresponding methods relates to the preparation of an enriched particle-containing sample.

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2. claims: 17-21

Claims 17-21 are directed to microfluidic devices and methods in which a channel is configured to accommodate a microfluidic sample and said channel includes an amount of thermally responsive substance (TRS), which substance can be melted and moved at a high enough temperature to allow movement of the sample through the channel.

These devices and methods are not concerned with concentrating particle-containing samples as is the case with claims 1-16 and solve a different problem relating to the control of movement of the sample within a microchannel.

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/025181

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01L3/00 B81B1/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01L B81B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99/09042 A (CEPHEID) 25 February 1999 (1999-02-25) page 31, line 9 - page 34, line 31 page 47, line 27 - page 49, line 14 page 7, line 8 - page 9, line 6 -----	9,10
A	-----	1-7
X	WO 03/055605 A (LOHF ASTRID ; SIEMENS AG (DE)) 10 July 2003 (2003-07-10) page 4, line 4 - page 5, line 25 -----	9
A	US 2003/127327 A1 (KURNIK RONALD T) 10 July 2003 (2003-07-10) paragraph [0006] - paragraph [0015] -----	1,9,10, 15

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

## ° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

4 November 2004

Date of mailing of the international search report

21.02.05

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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No  
PCT/US2004/025181

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 9909042	A	25-02-1999	US	6368871 B1	09-04-2002	
			AU	745989 B2	11-04-2002	
			AU	8906698 A	08-03-1999	
			CA	2301309 A1	25-02-1999	
			EP	1003759 A2	31-05-2000	
			JP	2001515216 T	18-09-2001	
			WO	9909042 A2	25-02-1999	
			US	2002175079 A1	28-11-2002	
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			CA	2312102 A1	08-07-1999	
			EP	1179585 A2	13-02-2002	
			EP	1042061 A1	11-10-2000	
			JP	2001527220 T	25-12-2001	
			WO	9933559 A1	08-07-1999	
			US	6440725 B1	27-08-2002	
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WO 03055605	A	10-07-2003	DE	10163476 A1	30-10-2003	
			AU	2002358447 A1	15-07-2003	
			WO	03055605 A1	10-07-2003	
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US 2003127327	A1	10-07-2003		NONE		
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